SECTION 55 – ENERGY USE, COSTS, AND EFFICIENCY

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55.1 What is the purpose of this information?

Executive Order 13123 requires agencies to track and reduce their energy use in buildings and facilities. The Energy Policy Act of 1992 (EPAct) required agencies to reduce their energy use per square foot of office space by 20 percent, relative to use in 1985, by the year 2000. E.O. 13123 extends those goals for office buildings to a 30 percent reduction by 2005 and 35 percent by 2010, relative to 1985. E.O. 13123 also requires improvements in industrial and laboratory facilities: 20 percent (relative to 1990) by 2005 and 25 percent by 2010. Part 3 of E.O. 13123 requires agencies to include budgetary information on energy use and efficiency in their budgets and sets out requirements for an annual report to the President on progress toward the energy efficiency goals.

55.2 How will this information be used?

OMB will review the resources your agency has requested for energy-efficiency improvements in the context of the requirements of E.O. 13123. The Department of Energy (DOE) will review and aggregate the numerical data and other information included in the report to the President to ensure the progress of each agency and to provide a government-wide picture of progress toward the mandated goals.

55.3 Do I need to report on energy use, costs, and efficiency?

If your agency controls its Federally-owned building space or directly pays the utilities in its leased space, then you must report your agency's aggregate energy consumption for each of the fuel types listed below. Reporting on leased buildings may pose some difficulty depending on the nature of the lease (partially serviced, fully serviced). If your agency leases space from the General Services Administration, GSA is responsible for reporting energy data for that space. If all of your space is leased from GSA, and if you do not pay any energy surcharges, then you do not have to report any data in this section.

If your agency has been delegated responsibility by GSA for operation and maintenance of the buildings you occupy, then you are required to report energy consumption for these buildings for any years in which the buildings are under your control.

You must provide data for three years:

- Final data for the previous year.

- Estimates for the current year.
- Estimates for the budget year for which you are planning.

55.4 When and how do I report?

Two data submissions are required. You must complete exhibit 55 with estimates for the past year, the current year, and the budget year, and submit it in September with your agency's budget submission to OMB. You should submit a revised exhibit 55 for *all three years,* with final data for the previous year, as part of your annual report to the President by January 1, 2002.

Submit the information to your agency's OMB representative, with copies to:

Agency Report Coordinator
Federal Energy Management Program (FEMP)
U.S. Department of Energy, EE-90
1000 Independence Ave., SW
Washington, DC 20585-0121
Phone: (202) 586-8287
Fax: (202) 585-3000
Email: rick.klimkos@hq.doe.gov

and

Energy Efficiency Examiner
Office of Management and Budget
NEOB Room 8025
725 17th St. NW
Washington, DC 20503
Phone: (202) 395-4573
Fax: (202) 395-1086
Email: Robert_Sandoli@omb.eop.gov

We encourage you to download the report format from the Internet (www.eren.doe.gov/femp/aboutfemp/report_guid.html) and complete the report electronically.

55.5 How do I prepare exhibit 55?

You must complete the applicable twelve tables shown in exhibit 55. Part 1 consists of six tables concerning energy consumption and cost data. Part 2 consists of six tables concerning energy efficiency improvements.

The Department of Energy Federal Energy Management Program (FEMP) issues annual guidance on agency reports to FEMP and to the President. Because the FEMP reporting requirements include most of the information requested here, plus additional narrative information, you may want to refer to FEMP's reporting guidance for more details and background on the energy data we are requesting. The reporting forms here and in the FEMP guidance require the same information, except for the "Identification of Funding" section included here. You can use the forms in this section for your annual report to FEMP and the President.

If your energy or water bills have different units of measurement from the ones required here, you must convert the data. For conversion units not given in the explanations for individual sections, refer to the detailed FEMP reporting guidance, which includes conversion tables.

You may adjust the 1985 baseline data if GSA has recently delegated responsibility for some buildings to your agency; however, you should discuss any changes to your baseline information with DOE's Federal Energy Management Program before making them. FEMP's annual reporting guidance document discusses specific cases in more detail, but in general, you should not make changes to your baseline.

(a) *Tables 1-1 and 1-2.*

For each category of buildings and facilities (standard, industrial, and exempt), report how much of each of the following types of energy your agency used, or how much you spent for that type of energy. If you know both the amount consumed and its cost, report both numbers. If you know only one, report that and the Department of Energy will estimate the other value based on the average national cost of each form of energy. You must submit all data in the reporting units shown below for each energy type. For each quantity of energy consumed, round to the nearest tenth of an integer, (i.e., 1,289.3 megawatt hours). For cost data, enter the annual cost for each energy type in thousands of dollars, rounded to the nearest tenth of an integer, (e.g., $77.4 for $77,358).

Energy type	*Reporting unit*
Electricity	(megawatt hours)
Fuel oil	(thousands of gallons)
Natural gas	(thousand cubic feet)
LPG/propane	(thousands of gallons)
Coal	(short ton)
Purchased steam	(billion BTU)
Other	(billion BTU)

If you were able to enter cost data for all types of energy you used, then total the annual costs and enter that number, in thousands of dollars, in the space provided.

Report the gross square footage of the standard buildings and facilities in your agency's inventory for each reporting year. Enter this number in thousands of square feet, rounded to the nearest tenth of an integer.

1. *Standard building or facility*. This category includes office and administrative buildings and any other building that does not specifically fit the criteria for an "industrial, laboratory, research, or other energy-intensive facility" or for an exempt facility. Refer to the DOE document, *Criteria for Exempting Facilities from the Goals of Executive Order 13123 and Guidance for Reporting Exemptions* for additional information.

2. *Industrial, laboratory, research, or other energy-intensive facilities*. This category includes data on buildings and facilities that by their nature have much higher energy consumption than standard office buildings. You can choose what measure of output or activity to use as a basis for computing energy efficiency. Your agency has the option of meeting the E.O. 13123 energy reduction goals in these facilities in terms of energy use per square foot like standard buildings, or in terms of some other performance ratio, such as energy use per ton of material handled, per flight prepared, or per some

other measure of productivity. Refer to section 203, *Performance Goals for Industrial, Laboratory, Research, and Other Energy-Intensive Facilities*, (www.eren.doe.gov/femp/resources/indust.html).

In tables 1-1 and 1-2, indicate the total cost for the optional unit of measure you have chosen, if any, in addition to the total consumption of each type of fuel and the total gross square feet of industrial/energy-intensive facilities.

(b) *Table 1-3. Facilities exempt from meeting the E.O. 13123 goals*.

You should refer to the DOE document, *Criteria for Exempting Facilities from the Goals of Executive Order 13123 and Guidance for Reporting Exemptions* (www.eren.doe.gov/femp/resources/criteria.html) to decide which facilities are exempt from the E.O. 13123 energy-efficiency improvement goals. Although these exempt buildings are not subject to the requirements of Sections 202 and 203 of E.O. 13123, you should still report energy consumption and cost data for them under the reporting category of "Exempt buildings," using the same method as for the standard buildings/facilities category.

(c) *Table 1-4. Tactical vehicles and other equipment***.**

Table 1-4 includes information on the fuel use of non-passenger vehicles and non-vehicle engines like mobile generators. For all liquid engine fuels, report your agency's total use in thousands of gallons of each type of fuel listed in exhibit 55. If you used significant quantities of a fuel not listed, report its use in billions of BTU. (See the detailed FEMP reporting guidance for conversion tables if necessary.) Also report the actual or estimated total cost to your agency of each type of fuel for each of the reporting years.

(d) *Table 1-5. Water consumption and cost.*

If your water bills have different units of measurement from the ones required here, you must convert the data. For conversion units, refer to the detailed FEMP reporting guidance which includes conversion tables.

(e) *Table 1-6. Renewable ("green") energy purchases***.**

With the advent of retail competition, Federal agencies have opportunities to purchase electricity in the competitive market from a retail supplier other than their local electric utility. In addition, Federal agencies have opportunities to purchase renewable energy from utilities as part of "green power" pricing programs. Your agency will get credit toward meeting the goals of E.O. 13123 by distinguishing "green energy" contracts from other power contracts, and reporting the portion of power attributable to renewable sources.

(1) *Purchases of renewable electricity*. Report the amount of renewable electricity you purchased from suppliers whose energy products are partially or completely derived from renewable sources. Your utility suppliers can tell you what percentage of the power is derived from renewables. Apply that percentage to both the gross usage and cost data to complete the table. For example, if you purchased 5000 MWH under a "green energy" contract where 10% of the power is from renewables, you would report 50 MWH and 10% of the total cost.

(2) *Purchased biomass or landfill gas (renewable energy sources)*. For competitive purchases of natural gas from renewable energy sources, provide the annual usage (in thousands of cubic feet) and the cost. Generally this would be purchased separately from other gas, so the renewable fraction is 100 percent. But if you purchased this gas in a mix with conventional natural gas, use the percentage mix to calculate and report the amount that is actually "renewable."

(3) *Purchased thermal energy from renewable energy sources*. For purchases of any form of thermal energy from renewable energy sources, provide the annual usage (in billion BTU) and the cost.

(4) *Average annual incremental costs*. In the last line of the table, estimate the incremental (extra) cost you paid for renewable energy by multiplying the renewable quantity times the difference in unit price between conventional energy and your renewable energy contract.

(f) *Table 2-1. Direct agency obligations.*

These are obligations for energy or water efficiency incurred from appropriated funds, revolving fund accounts, or other accounts that belong to your agency; for example, obligations for purchases of compact fluorescent lights to replace incandescent bulbs, or replacement chillers paid for directly by your agency rather than through an energy savings performance contract. They do not include anything to be paid for or financed by a third party (e.g., a utility or energy-savings performance contractor). Report training data separately in table 2-5.

Provide information on the funds your agency obligated or plans to obligate for each reporting year. Enter amounts in thousands of dollars rounded to the nearest tenth of an integer.

(g) *Table 2-2. Energy savings performance contracts.*

Energy-savings performance contracts (ESPCs) are contracts that allow a private-sector energy service company (ESCO) to perform energy-efficiency improvements at a government facility using third-party financing, rather than the government paying for the work directly. The ESP contracts provide that the contractor guarantees a certain minimum level of energy savings, and based on that guarantee, the government will pay the contractor some or all of the guaranteed savings until the improvements have been paid off, including interest and maintenance. ESPCs allow agencies to undertake more and larger efficiency improvements than their budgets might otherwise allow and OMB encourages their use.

The first line of table 2-2 will show the total number of new ESPCs awarded by your agency in each reporting year. Report only new ESPCs signed during that year, in the "number/thou $" column. On the same line, in the "MMBTU" column, enter the average *annual* energy savings anticipated from the ESP contracts awarded in each year, in millions of BTU. On the second line, enter the total value of new ESPCs signed during each reporting year. The third and fourth lines show how the estimated life-cycle cost savings of all of the ESPCs you reported on the first two lines are to be split between contractor payments and savings retained by your agency. Each ESPC has a schedule of payments, and you can ask your sites to aggregate their total expected contractor payments and retained savings. Note that the data represent multi-year totals, but you report only how the savings will be split in new ESPCs signed during the reporting years. The last line is an annual figure – the total amount your agency paid or will pay to ESP contractors during each reporting year.

(h) *Table 2-3. Utility energy services contracts.*

Utility Energy Services Contracts (UESCs) are similar to ESPCs, except that the work is performed by the utilities serving your agency's sites under an "area-wide agreement," usually negotiated by GSA.

The first line of this table will include the total number of new UESCs awarded by your agency in each reporting year. Report only new UESCs signed during that year, in the "number/thou $" column. On the same line, in the "MMBTU" column, enter the average *annual* energy savings anticipated from UES contracts awarded in each year, in millions of BTU. The second line will show the total value of new UESCs signed during each reporting year. The third and fourth lines show how the estimated life-cycle cost savings of all of the UESCs you reported on the first two lines are to be split between contractor payments and savings retained by your agency. Each UESC has a schedule of payments, and you can ask your sites to aggregate their total expected contractor payments and retained savings. Note that these amounts are multi-year totals, but you report only how the savings will be split in new UESCs signed during the reporting years. The last line is an annual figure – the total amount your agency paid or will pay to UES contractors during each reporting year.

(i) *Table 2-4. Utility incentives or rebates.*

Beginning with EPAct, agencies were authorized and encouraged to participate in demand-side management (DSM) incentive programs offered by their servicing utilities (or by Administrators of public purpose programs in states that have restructured). You should report incentives received for projects accomplished in each year.

On the first line of table 2-4, enter in thousands of dollars the total amount of financial incentives received in each year from either your servicing utility(ies) or the Administrator of a public purpose program. On the same line, enter the estimated amount of energy (in millions of BTU) that will be saved annually by the projects for which you received rebates. On the second line, enter the amount of funds your agency expended on projects that received incentive payments (i.e., the expenditures that were necessary in order to receive the incentives). These funds may include direct expenditures reported in the direct expenditures table and/or savings paid to ESP or utility energy service contractors reported in previous tables.

(j) *Table 2-5. Training.*

Enter the number of Federal personnel or on-site contractors in your agency who received or are expected to receive energy management training in each year, and also enter your expenditures (or budget) during each of those years for energy management training. When counting the number of people who received training, include only people who received organized instruction, not those who received general-information items like flyers reminding people to turn out lights and turn off computers. The cost of such general information items intended to raise energy awareness among all employees can be included in the training budget entries, however.

(k) *Table 2-6. Identification of funds.*

For the budget year only, identify funds requested for the efficiency activities listed.

Annual Energy Management Data Report

Agency_____ Prepared by: _____
Date: _____ Phone: _____

PART 1: ENERGY CONSUMPTION AND COST DATA

1-1. Standard Buildings/Facilities

	Entry	Consump-tion units	FY 2001		FY 2002		FY 2003	
			Annual consumption	Annual cost (thou. $)	Annual consumption	Annual cost (thou. $)	Annual consumption	Annual cost (thou. $)
1101	Electricity	MWH						
1102	Fuel oil	thou. gal.						
1103	Natural gas	thou. cu. ft.						
1104	LPG/propane	thou. gal.						
1105	Coal	s. ton						
1106	Purch. steam	BBtu						
1107	Other	BBtu						
1108		Total cost						

1109 Standard Buildings/Facilities
(thou. gross square feet) _____ _____ _____

1-2. Industrial, Laboratory, Research, and Other Energy-Intensive Facilities

	Entry	Consump-tion units	FY 2001		FY 2002		FY 2003	
			Annual consumption	Annual cost (thou. $)	Annual consumption	Annual cost (thou. $)	Annual consumption	Annual cost (thou. $)
1201	Electricity	MWH						
1202	Fuel oil	thou. gal.						
1203	Natural gas	thou. cu. ft.						
1204	LPG/propane	thou. gal.						
1205	Coal	s. ton						
1206	Purch. steam	BBtu						
1207	Other	BBtu						
1208		Total cost						

1209 Energy-Intensive Facilities
(thou. gross square feet) _____ _____ _____

1-3. Exempt Facilities

	Entry	Consump-tion units	FY 2001		FY 2002		FY 2003	
			Annual consumption	Annual cost (thou. $)	Annual consumption	Annual cost (thou. $)	Annual consumption	Annual cost (thou. $)
1301	Electricity	MWH						
1302	Fuel oil	thou. gal.						
1303	Natural gas	thou. cu. ft.						
1304	LPG/propane	thou. gal.						
1305	Coal	s. ton						
1306	Purch. steam	BBtu						
1307	Other	BBtu						
1308		Total cost						

1309 Exempt Facilities
(thou. gross square feet) _____ _____ _____

Annual Energy Management Data Report -- Continued

Agency: _____ Prepared by: _____
Date: _____ Phone: _____

1-4. Tactical Vehicles and Other Equipment

	Entry	Consump-tion units	FY 2001		FY 2002		FY 2003	
			Annual consumption	Annual cost (thou. $)	Annual consumption	Annual cost (thou. $)	Annual consumption	Annual cost (thou. $)
1401	Auto gasoline	thou. gal.						
1402	Diesel-distillate	thou. gal.						
1403	LPG/propane	thou. gal.						
1404	Aviation gasoline	thou. gal.						
1405	Jet fuel	thou. gal.						
1406	Navy special	thou. gal.						
1407	Other	billion Btu						
1408		Total cost						

1-5. Water Consumptin and Cost

	Entry	Consump-tion units	FY 2001		FY 2002		FY 2003	
			Annual consumption	Annual cost (thou. $)	Annual consumption	Annual cost (thou. $)	Annual consumption	Annual cost (thou. $)
1501	Water	million gal.						

1-6. Renewable Green Energy Purchases (Note: Direct expenditures on green energy products)

	Entry	Consump-tion units	FY 2001		FY 2002		FY 2003	
			Annual consumption	Annual cost (thou. $)	Annual consumption	Annual cost (thou. $)	Annual consumption	Annual cost (thou. $)
1601	Electricity from renewables	MWH						
1602	Natural gas from landfill/biomass	thou. cu. ft.						
1603	Thermal energy	MMBTU						
1604	Average annual savings/costs anticipated from expenditures (show costs as negative)							

PART 2: ENERGY EFFICIENCY IMPROVEMENTS

2-1. Direct Agency Obligations

	Entry	FY 2001		FY 2002		FY 2003	
		Annual savings		Annual savings		Annual savings	
		(MMBTU)	(thou. $)	(MMBTU)	(thou. $)	(MMBTU)	(thou. $)
2101	Average annual savings anticipated from obligations						
2102	Direct obligations for facility energy efficiency improve-ments, including facility surveys/audits						

Annual Energy Management Data Report -- Continued

Agency: _____ Prepared by: _____
Date: _____ Phone: _____

2-2. Energy-Savings Performance Contracts (ESPCs)

	Entry	FY 2001		FY 2002		FY 2003	
		Annual savings (MMBTU)	Amount (number/thou. $)	Annual savings (MMBTU)	Amount (number/thou. $)	Annual savings (MMBTU)	Amount (number/thou. $)
2201	Number of ESP contracts awarded in fiscal year & annual energy (MMBTU) savings						
2202	Total value of ESP contracts awarded in fiscal year						
2203	Estimated lif-cycle cost savings of ESPCs awarded in fiscal year (Contractor share)						
2204	Estimated life-cycle cost savings of ESPCs awarded in fiscal year (Government share)						
2205	Total ***annual*** payments made to all ESP contractors						

2-3. Utility Energy Services Contracts (UESCs)

	Entry	FY 2001		FY 2002		FY 2003	
		Annual savings (MMBTU)	Amount (number/ thou. $)	Annual savings (MMBTU)	Amount (number/ thou. $)	Annual savings (MMBTU)	Amount (number/ thou. $)
2301	Number of utility energy services contracts awarded in fiscal year						
2302	Total value of utility energy services contracts awarded in fiscal year						
2303	Estimated life-cycle cost savings of UESCs awarded in fiscal year (Contractor share)						
2304	Estimated life-cycle cost savings of UESCs awarded in fiscal year (Government share)						
2305	Total ***annual*** payments made to all UES contractors						

2-4. Utility Incentives (Rebates)

	Entry	FY 2001		FY 2002		FY 2003	
		Annual savings (MMBTU)	Amount (number/ thou. $)	Annual savings (MMBTU)	Amount (number/ thou. $)	Annual savings (MMBTU)	Amount (number/ thou. $)
2401	Incentives received and estimated energy savings						
2402	Funds spend in order to receive incentives						

Annual Energy Management Data Report -- Continued

Agency: _____ Prepared by: _____
Date: _____ Phone: _____

2-5. Training

	Entry	FY 2001		FY 2002		FY 2003	
		Number	(thou. $)	Number	(thou. $)	Number	(thou. $)
2501	Number of personnel trained/ expenditure						

2-6. Identification of Funds

Note: For the budget year **only**, identify where you have requested funds for the specified efficiency activities.

	Efficiency activity	Amount (thou. $)	Account	Program	Annual cost (thou. $)	Line item	Page in budget request
2601	ESPC or utility service contracts negotiation/management						
2602	Direct spending on efficiency						
2603	Direct spending on training						
2604	Energy Star building design/ construction incremental costs						
2605	"Green Power" purchases						
2606	On-site generation and remewable energy						